

REMARKS

Claims 23, 24, 32, 33, and 37-63 appear in this application for the Examiner's review and consideration, since claims 1-22, 25-31, and 34-36 have been cancelled without prejudice. Also, 23 and 33 are presently amended.

In the Office Action, claim 23 was objected to due to a typographical error which has now been corrected.

Claims 1-5, 7, 8, 10-13, 15-19, 21-25, 27-29, and 31-36 were rejected under 35 U.S.C. § 102(b) over Nakagawa. Claim 23 is directed to an electric vehicle frame that includes upper and lower associated frame portions with a strut framework that defines an interior cavity to house an energy source that provides the propulsive energy to the electric motor. The struts have first and second ends, which are each connected to ends of other struts. A seat is mounted on the second frame portion above the interior cavity. Also, the second frame portion has a skin member that significantly stiffens the strut frame of the lower frame portion.

Nakagawa does not teach or suggest the recited strut-frame that is stiffened by an upper frame portion skin, with a seat mounted on the upper frame portion and above the interior cavity. Instead, the batteries of Nakagawa are placed under the rider's feet, in an area that is not cooperatively defined by the portions recited in the claim. Consequently, claim 23 is patentably distinct over Nakagawa.

Claim 37 is directed to a vehicle frame with first and second frame portions associated to provide a strut-framework, in which the portions cooperate to significantly increase the stiffness of the assembled frame compared to the stiffnesses of the first and second frame portions independently. The struts in the framework have first and second ends, each connected to first and second ends of other struts. Among other things, Nakagawa does not teach or suggest the stiffening association recited, and is patentably distinct therefrom.

The rest of the claims are also patentable on their own merits. For example, claim 38 defines that each lateral group of struts, which define lateral sides of the cavity, include upper and lower struts disposed one above the other and extending generally longitudinally along the first and second sides. This provides the surprising advantage that

the bending moments can be carried by the spaced struts, which can provide a significantly increased bending moment of inertia compared to Nakagawa.

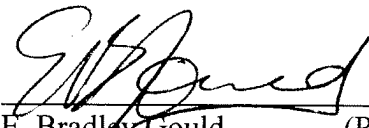
Also, other claims, such as 24, 25, 26, and 55 define structural skins that are associated with several of the struts to significantly increase the torsional stiffness thereof. Claim 55 further specifies a total increase of longitudinal torsional stiffness of the frame, and that this is measured between connection portions for connecting to wheels, such as a steering tube or a connection to a swing arm. These features are neither taught nor suggested in the references of record.

Another example is claim 39, which defines an advantageous configuration with lower and upper struts in the side groups, with the upper struts being in compression when the frame is mounted on the wheels. The second frame portion extends over and across the interior cavity and is structurally associated with the longitudinal portions for substantially increasing the stiffness thereof. This provides the surprising benefit of improving buckling resistance of the upper struts by using a portion of the frame that cooperates to enclose the interior cavity, thus decreasing parts count, and providing a more efficient structure.

In view of the foregoing, it is believed that the entire application is now in condition for allowance, early notice of which would be appreciated. Should the Examiner not agree, then a personal or telephonic interview is respectfully requested to discuss any remaining issues in an effort to expedite the allowance of this application.

Respectfully submitted,

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